

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Re Application of:

Nobuyoshi Morimoto

Serial No.: 09/675,258

Filed: September 28, 2000

Title: System and Method for Tracking
and Routing Shipped Items

§ Group Art Unit: 2171

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§ Examiner: Nguyen, Marilyn P.

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§ Atty. Dkt. No.: 5596-00400

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37 C.F.R. § 1.8**

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APPEAL BRIEF

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Sir/Madam:

Further to the Notice of Appeal mailed July 1, 2003, Appellant presents this Appeal Brief. Appellant respectfully requests that this appeal be considered by the Board of Patent Appeals and Interferences.

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I. REAL PARTY IN INTEREST

The subject application is owned by Nihon Dot.Com Co. Ltd. (d/b/a ColonDot.Com), a Japanese corporation.

II. RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1-52 were present in the original application. Subsequently, claims 53-74 were added, and claims 6, 24-27, 29-40, 43, 48, 52, 71 and 72 have been canceled. Claims 1-5, 7-23, 28, 41, 42, 44-47, 49-51, 53-70, 73 and 74 are pending and stand finally rejected and are the subject of this appeal. A clean copy of claims 1-5, 7-23, 28, 41, 42, 44-47, 49-51, 53-70, 73 and 74, as on appeal, is included herewith as an Appendix.

IV. STATUS OF AMENDMENTS

Subsequent to the Final Rejection, an amendment was filed canceling claims 71 and 72. According to the Advisory Action of July 2, 2003, the amendment canceling claims 71 and 72 has been entered. The Appendix reflects the current state of the claims on appeal.

V. SUMMARY OF THE INVENTION

As shown and described for Figs. 2 and 3, a central server 90 may obtain shipping information (e.g. availability, shipping times, prices, etc.) from various shipping companies over a network 92. The central server 90 may maintain a database of this information that is periodically updated. A shipping request may be forwarded over the network to central server 90. The shipping request may be received directly from an end

customer or from a shipping company. The shipping request may include information about the item to be shipped (e.g., size, weight, origination, final destination, shipping deadline, any insurance or special handling requirements, etc.). In response, central server 90 may execute an optimization program configured to query network members (e.g. shipping companies) and/or its database and search out a most efficient (e.g., lowest cost) routing for the item within the specified constraints. (p. 15, line 18 - p. 16, line 8; p. 17, line 24 - p. 18, line 14; Fig. 5). The most efficient routing may include using at least two different shipping companies and one or more intermediate destinations. (p. 2, lines 20-28 and p. 14, line 23 - p. 15, line 6).

The central server may create a data file for the item to be shipped. The data file may indicate information about the item to be shipped and routing information by which the item is to be shipped, including an indication of two or more different shipping companies and one or more intermediate destinations. (Fig. 4; p. 16, line 12 - p. 17, line 13; p 18, lines 20-23). The data file may be sent over the network to the customer and/or originating shipping company. The data file may be downloaded to a memory device 50 that is included with a container 40 used to ship the item(s).

The container 40 may be shipped with other containers 40 in a carrier 30 designed for removal and/or insertion of containers on an individual basis at intermediate destinations. The carrier 30 may also include a memory device 60 storing shipping information for the carrier and/or containers. Figs. 1A-1K. A carrier may be shipped to a destination according to information stored in its memory device 60. At the destination, a container 40 may removed from the carrier according to the information stored in its memory device 50 and inserted into a carrier headed for another destination. This may continue until the item reaches its final destination. (p. 3, line 1 - p. 5, line 8; p. 7, line 26 - p. 10, line 7.). Carriers 30 may be shipped between hubs by various shipping companies on a routine basis and containers may be swapped between carriers at the hubs according to information stored in the memory devices. In this manner, containers may be routed like digital data through a packet-switching network. (p. 11, line 4 - p. 12, line 12).

Arrival of the item at each intermediate destination and at the final destination may be noted by accessing the memory device. These events may be conveyed over the network to the central server which may update a database and/or send confirmations over the network. (p. 19, lines 2-9). When a container arrives at an intermediate destination, the central server may be contacted over the network to determine if an even more efficient shipping route has become available. Thus, the central server may modify the route during shipping. To modify the route, the central server may update the memory device over the network for the item being shipped. (Fig. 6; p. 19 line, 14 - p. 20, line 15). The central server may also modify the shipping route for an item to avoid obstacles that have arisen during shipping (e.g. bad weather, strikes, etc.). (Fig. 8; p. 22, line 16 - p. 23, line 8). Thus, over the network the central server may cause the information stored in the memory device to be updated at intermediate destinations to improve the shipping route as the item is being shipped.

The memory device may include a communication interface (wireless, infrared, etc.) to allow access to the data file. The memory device may also include environmental sensors, global positioning system, and may store digital images of the item being shipped. (p. 10, line 9 - p. 11, line 2). This information may be reported to the central server as the item is being shipped, and in turn the central server may update a customer with the information. (Fig. 7; p. 20, line 17 - p. 22, line 12).

VI. ISSUES

1. Whether claims 1-4, 7-11, 13-15, 22, 23, 28, 41, 42, 50, 55, 56, 58-62, 67, 69, 70 and 74 are anticipated by Theimer et al. (U.S. Pat. 5,627,517) under 35 U.S.C. § 102(b).
2. Whether claims 5, 49 and 57 are unpatentable over Theimer et al. (U.S. Pat. 5,627,517) under 35 U.S.C. § 103(a).
3. Whether claims 12, 16, 17 and 63-65 are unpatentable over Theimer et al. (U.S.

Pat. 5,627,517) in view of Ross et al. (U.S. Pat. 6,332,098) under 35 U.S.C. § 103(a).

4. Whether claims 18, 20, 21 and 66 are unpatentable over Theimer et al. (U.S. Pat. 5,627,517) in view of Welles, II et al. (U.S. Pat. 5,686,888) under 35 U.S.C. § 103(a).

5. Whether claim 19 is unpatentable over Theimer et al. (U.S. Pat. 5,627,517) in view of Wortham (U.S. Pat. 5,999,091) under 35 U.S.C. § 103(a).

6. Whether claims 44-47, 51, 54, 68 and 73 are unpatentable over Theimer et al. (U.S. Pat. 5,627,517) in view of Shavit et al. (U.S. Pat. 4,799,156) under 35 U.S.C. § 103(a).

7. Whether a proper rejection has been stated for claim 53.

VII. GROUPING OF CLAIMS

Claims 1-3, 7, 8, 12-15 and 18-22 stand or fall together for purposes of this appeal only.

Claim 4 stands or falls alone.

Claim 5 stands or falls alone.

Claim 9 stands or falls alone.

Claim 10 stands or falls alone.

Claim 11 stands or falls alone.

Claims 16 and 17 stand or fall together for purposes of this appeal only.

Claim 23 stands or falls alone.

Claim 28 stands or falls alone.

Claim 41 stands or falls alone.

Claim 42 stands or falls alone.

Claim 44 stands or falls alone.

Claim 45 stands or falls alone.

Claim 46 stands or falls alone.

Claim 47 stands or falls alone.

Claim 49 stands or falls alone.

Claim 50 stands or falls alone.

Claim 51 stands or falls alone.

Claims 53, 63 and 66 stand or fall together for purposes of this appeal only.

Claim 54 stands or falls alone.

Claim 55 stands or falls alone.

Claim 56 stands or falls alone.

Claim 57 stands or falls alone.

Claim 58 stands or falls alone.

Claim 59 stands or falls alone.

Claim 60 stands or falls alone.

Claim 61 stands or falls alone.

Claim 62 stands or falls alone.

Claims 64 and 65 stand or fall together for purposes of this appeal only.

Claim 67 stands or falls alone.

Claim 68 stands or falls alone.

Claim 69 stands or falls alone.

Claim 70 stands or falls alone.

Claim 73 stands or falls alone.

Claim 74 stands or falls alone.

The reasons why each group of claims is believed to be separately patentable are explained below in the Argument.

VIII. ARGUMENT

Claims 1-3, 7, 8, 12-15 and 18-22:

Claim 1 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer et al. (U.S. Pat. 5,627,517) (hereinafter “Theimer”). Appellant asserts that claim 1 is not anticipated by Theimer for at least the following reasons.

Theimer does not teach a central server receiving via a network a request to ship an item, as recited in claim 1. The Examiner states that element 106 in Fig. 3 of Theimer is a central server that receives via a network a request to ship an item. However, Theimer describes element 106 as a “large-scale transceiver which is permanently associated with, for example, a destination city.” (Theimer -- col. 7, lines 58-59). Theimer describes that the function of the large-scale transceiver 106 is to “broadcast destination codes which are cascaded through each respective tag so that a tag 100 associated with a package 10 can detect, by the nature of the broadcast signals it receives, that a package is or is not in the right bulk container, that the bulk container is on a truck or airplane intended for the correct destination, and that the truck or airplane is indeed heading toward the correct destination.” (Theimer -- col. 7, lines 60-67). Thus, the only function performed by Theimer’s large-scale transceiver 106 is to broadcast a destination code for its permanent location so that nearby tags on items being shipped can determine if they are heading to the correct destination. Large-scale transceiver 106 is clearly not a central server that receives via a network a request to ship an item. The only network illustrated in Fig. 3 of Theimer is the broadcast network between large-scale transceiver 106 and tags 104, 102 and 100. The large-scale transceiver 106 clearly does not receive a request to ship an item over this broadcast network.

In the Final Action, the Examiner curiously states in a footnote on p. 3 that Merriam-Webster Dictionary defines server as “one that serves legal process upon another”, and therefore a transceiver can be considered a server. Appellant fails to follow the Examiner’s logic. Clearly, in the context of the present invention, one of ordinary

skill in the art would not consider a legal process server nor a large-scale transceiver to be a central server that receives a request via a network to ship an item. Even if the large-scale transceiver 106 was considered to be a server of destination codes to nearby tags, it still does not receive over the broadcast network a request to ship an item.

In the Final Action, the Examiner also cites col. 4, lines 1-7 of Theimer to support the rejection. However, this portion of Theimer has nothing to do with the large-scale transceiver 106 of Fig. 3. This portion of Theimer describes an input transceiver that communicates with a package tag on a series of conveyor belts to control the package's movement on the conveyor belts.

In the Advisory Action of July 2, 2003, the Examiner states that large-scale transceiver 106 does a central server job of receiving and transmitting data to and from different resources and searching a database, and controls access to the network and its resources and provides resources. The Examiner's statement is not supported by the teachings of Theimer. Theimer does not teach that large-scale transceiver 106 receives data from different resources. Nor does Theimer teach that large-scale transceiver 106 searches a database. Nor does Theimer teach that large-scale transceiver 106 controls access to a network and its resources. The only function that Theimer describes for large-scale transceiver 106 is to broadcast a destination code for a particular city. In the Advisory Action the Examiner refers to col. 9, lines 30-45 of Theimer. However, this portion of Theimer has nothing to do with large-scale transceiver 106. Instead, this portion of Theimer describes that a tag can access a schedule in its memory to make routing decisions. Thus, this portion of Theimer describes how the intelligent tags of Theimer work, not the large-scale transceiver 106. Furthermore, this portion of Theimer says nothing about receiving via a network a request to ship an item.

Furthermore, Theimer does not teach the central server searching a database for a most inexpensive routing, wherein the most inexpensive routing includes using two or more different shipping companies and one or more intermediate

destinations, as recited in claim 1. The Examiner refers to col. 9, lines 30-56 and col. 8, lines 16-20 of Theimer to teach this limitation. However, col. 9, lines 30-56 describes the operation of “each individual tag”, not a central server that receives a request via a network to ship an item. An individual intelligent tag on a package that accesses shipping information in its memory to select a different route is clearly not the same thing as a central server that receives a request via a network to ship an item and searches a database for a most inexpensive routing. Furthermore, col. 9, lines 30-56 of Theimer does not teach searching for a most inexpensive route that includes using two or more different shipping companies and one or more intermediate destinations. Theimer does mention that the tag may include information about cost alternatives among competing transport services. This suggests that the tag may select a route using one service or another, but it does not suggest that the tag would select a route using two or more different shipping companies. Furthermore, Theimer does not teach that the competing transport services are from different shipping companies. Often, the same shipping company offers competing transport service, such as air or ground, overnight or regular, etc.

Col. 8, lines 16-20 does refer to a sequence of destinations stored in the tag memory. However, this portion of Theimer does not teach that the sequence of destinations are part of a most inexpensive route using two or more different shipping companies as determined by a central server searching a database. Therefore, Theimer does not anticipate a central server searching a database for a most inexpensive route that includes using two or more different shipping companies and one or more intermediate destinations.

Furthermore, Theimer does not teach a central server generating a data file comprising the intermediate and final destination information, as recited in claim 1. The Examiner relies on col. 8, lines 14-20 of Theimer to teach this limitation. This portion of Theimer does mention that the memory of a tag may include information for a sequence of destinations. However, Theimer does not teach that this information was generated by a central server that receives via a network a request to ship an item. As

discussed above, the Examiner relies on large-scale transceiver 106 of Theimer to anticipate the central server. Theimer does not teach that large-scale transceiver 106 generates that data stored in the tag memory for a sequence of destination referred to at col. 8, lines 14-20. Therefore, Theimer does not anticipate a central server generating a data file comprising the intermediate and final destination information.

Furthermore, Theimer does not teach the central server transferring the data file over a network and storing the data file in a memory device that accompanies the item, as recited in claim 1. The Examiner cites Fig. 3 and col. 7, lines 45-67 of Theimer as teaching a central server transferring the data file including intermediate and final destination information over a network. As discussed above, this portion of Theimer refers to large-scale transceiver 106 broadcasting a destination code to passerby tags. There is absolutely no teaching in this or any other portion of Theimer that the large-scale transceiver 106 transfers a data file including intermediate and final destination information over a network. Theimer does mention that its tags may include information on a sequence of destinations, but Theimer does not teach that this information is transferred by large-scale transceiver 106 over a network.

As shown above, Theimer fails to teach numerous limitations recited in claim 1. Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Appellant's invention as recited in claim 1 is clearly not anticipated by Theimer.

Moreover, Theimer explicitly teaches away from the use of a central server as recited in claim 1. "The general principle behind [Theimer's teachings] is that each package is ultimately responsible for its own fate in the distribution system, as opposed to a centralized system." (Theimer -- col. 3, lines 47-51) (emphasis added). Theimer also

discusses the disadvantages of centralized systems in col. 1. Theimer teaches that as much intelligence as possible for determining where the package will go should remain with the tag, as opposed to a centralized system. (Theimer -- col. 8, lines 41-43). Theimer teaches that by including the intelligence in the tags, the individual routing stations at fixed points in the system (such as large-scale transceiver 106) can be made as passive as possible. (Theimer -- col. 8, lines 44-50). As noted in the Theimer's title, Theimer teaches a decentralized tracking and routing system. Thus, Theimer explicitly teaches away from using a central server as recited in claim 1.

Claim 4:

Claim 4 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 1, claim 4 is further distinguishable over Theimer because Theimer does not teach forwarding copies of at least a portion of the data file via the network to one or more parties involved in the shipping, wherein the parties include at least an originator of the request to ship the item, a recipient of the item at the final destination, and two or more shipping companies. The Examiner refers to col. 7, lines 52-67. However, this portion of Theimer refers to large-scale transceiver 106 broadcasting a destination code to passerby tags. There is absolutely no teaching in this or any other portion of Theimer that the large-scale transceiver 106 forwards copies of at least a portion of the data file via the network to one or more parties involved in the shipping, wherein the parties include at least an originator of the request to ship the item, a recipient of the item at the final destination, and two or more shipping companies.

Claim 5:

Claim 5 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer. In addition to the reasons stated in regard to claim 1, claim 5 is further distinguishable because the cited art does not teach or suggest forwarding copies of the data file via the network to one or more predetermined email addresses. The Examiner

states that it “would have been obvious to one of ordinary skill in the art to forwarding copies of data file using email since email is the fastest way to communicate.” Final Action, p. 10-11. The Examiner has not cited any prior art to support this hindsight speculation. Thus, the Office Action’s statement impermissibly relies on the level of skill in the art to provide a suggestion to modify Theimer in the absence of any reference that suggests such a modification. “To imbue one of ordinary skill in the art with knowledge of the invention... when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.” *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed.Cir.1983). “To support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references... [S]implicity and hindsight are not the proper criteria for resolving the issue of obviousness.” *Ex Parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Int’f 1985). The rejection of claim 5 is not supported by any teaching found in the prior art. Instead, the Examiner has impermissibly applied hindsight speculation to reject the claims. Even when the Examiner is relying on implicit teachings, “particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.” *In re Kotzab*, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). Such findings must be support by actual evidence, not just statements by the Examiner. *Id.*

Claim 9:

Claim 9 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 1, claim 9 is further distinguishable over Theimer because Theimer does not teach receiving the carrier at a first intermediate destination, removing the container from the carrier, and inserting the container into a different carrier with a second set of additional containers bound for a

second intermediate destination or the final destination. The Examiner refers to col. 8, lines 20-23. Neither this nor any other portion of Theimer makes any mention of moving the container to a different carrier with a second set of containers at an intermediate destination.

Claim 10:

Claim 10 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 1, claim 10 is further distinguishable over Theimer because Theimer does not teach the data file generated by the central server further comprises contact information for one or more shipping companies that will handle the item. The Examiner refers to col. 7, lines 21-41. This portion of Theimer discusses how zip code information could be broadcast to tags so that the tags can determine if they are in the correct regions. Neither this nor any other portion of Theimer makes any mention of a data file generated by a central server comprising contact information for one or more shipping companies that will handle the item.

Claim 11:

Claim 11 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 1, claim 11 is further distinguishable over Theimer because Theimer does not teach storing the data file on a server connected to the network, wherein the server provides access to the data file via the network. The Examiner refers to col. 7, lines 13-20. This portion of Theimer discusses entering a destination code onto a tag before the tag is attached to a package. Neither this nor any other portion of Theimer makes any mention of storing the data file (from claim 1) on a server connected to the network, wherein the server provides access to the data file via the network.

Claims 16 and 17:

Claims 16 and 17 have been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Ross et al. (U.S. Pat. 6,332,098) (hereinafter “Ross”). In addition to the reasons stated in regard to claim 1, claims 16 and 17 are further distinguishable because the cited art does not teach or suggest that the data file which is stored in the memory device that accompanies the item (per claim 1) includes one or more digital images of the item. Ross does teach taking digital images of an item. However, Ross does not teach storing those digital images in memory devices accompanying the items. Ross describes tags for storing information such as weight, but it is the “arch or zone” in Ross that takes the digital images. Ross does not teach that these digital images are ever stored in the tags. Nor does the cited art provide any motivation to modify the decentralized routing tags of Theimer to include digital images.

Claim 23:

Claim 23 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 1, claim 23 is further distinguishable over Theimer because Theimer does not teach detecting one or more obstacles to on-time delivery of the item and searching the database for a new least expensive routing that avoids the obstacles, wherein the database is the same database searched by the central server to locate the most inexpensive routing. The portion of Theimer cited by the Examiner does discuss the tag performing a rescheduling operation. However, Theimer does not teach that the tag searches the same database that was searched by a central server to locate the original most inexpensive route.

Claim 28:

Claim 28 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 1, claim 28 is further distinguishable over Theimer because Theimer does not teach updating the data file on the central server to reflect arrival of the item at one or more of the intermediate

destinations. The Examiner refers to col. 8, lines 33-43. This portion of Theimer teaches that the intelligence for determining where the tag will go should remain on the tag. Thus, the portion of Theimer cited by the Examiner actually teaches away from updating a data file on a central server to reflect arrival of the item at one or more of the intermediate destinations.

Claim 41:

Claim 41 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 1, claim 41 is further distinguishable over Theimer because Theimer does not teach that the memory device is a flash memory device. The Examiner refers to the active memory 230 of Theimer's tag. However, there are many kinds of active memory. Nowhere does Theimer teach or suggest that its active memory is a flash memory device. Therefore, claim 41 is not anticipated by Theimer.

Claim 42:

Claim 42 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 1, claim 42 is further distinguishable over Theimer because Theimer does not teach that the memory device is a CD-RW (compact disc - rewritable). The Examiner refers to the active memory 230 of Theimer's tag. However, there are many kinds of active memory. Nowhere does Theimer teach or suggest that its active memory is a CD-RW. Therefore, claim 42 is not anticipated by Theimer.

Claim 44:

Claim 44 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Shavit et al. (U.S. Pat. 4,799,156) (hereinafter "Shavit"). In addition to the reasons stated in regard to claim 1, claim 44 is further patentable because

the references are not properly combinable. As discussed above, Theimer explicitly teaches away from using a centralized system. Shavit teaches a centralized interactive market management system. In light of the explicit teaching away in Theimer from centralized systems, one of ordinary skill in the art would not look to combine the teaches of Theimer and Shavit. “It is improper to combine references where the references teach away from their combination.” *In re Graselli*, 218 USPQ 769, 779 (Fed. Cir. 1983). Therefore, the rejection based on the combination of Theimer and Shavit is improper.

Claim 45:

Claim 45 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Shavit. In addition to the reasons stated in regard to claim 1, claim 45 is further patentable because the request for quote sent out in Shavit is not for selecting an alternate shipping route in response to detecting one or more obstacles to on-time delivery of the item. Furthermore, the centralized system of Shavit is not applicable to the decentralized tags of Theimer. As discussed above in regard to claim 44, one of ordinary skill in the art would not look to the centralized system of Shavit in light of the explicit teaching away from such systems in Theimer. The combination of Shavit and Theimer is improper.

Claim 46:

Claim 46 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Shavit. In addition to the reasons stated in regard to claims 1 and 45, claim 46 is further patentable because the cited art does not teach or suggest that the obstacles include travel advisories for one or more of the intermediate locations. The advisory in Shavit is for a broken truck, not a travel advisory (e.g. weather related). Furthermore, the advisory in Shavit is not an obstacle that is detected and in response to which an alternate route is selected.

Claim 47:

Claim 46 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Shavit. In addition to the reasons stated in regard to claims 1 and 45, claim 47 is further patentable because the cited art does not teach or suggest that the obstacles include shipping backlogs. The portion of Theimer cited by the Examiner refers to an airplane delay, not a shipping backlog.

Claim 49:

Claim 49 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer. In addition to the reasons stated in regard to claim 1, claim 49 is further distinguishable because the cited art does not teach or suggest updating the data file on the central server to reflect the item's arrival at the final destination. The Examiner admits that Theimer does not teach this limitation. The Examiner then makes the entirely unsupported and conclusory statement that the claim limitation is "well known". No art has been cited to support the Examiner's position. Instead, the Examiner has impermissibly applied hindsight speculation to reject the claims. Even when the Examiner is relying on implicit teachings, "particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." *In re Kotzab*, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). Such findings must be supported by actual evidence, not just statements by the Examiner. *Id.* Furthermore, as discussed above, Theimer teaches away from a central server. Therefore, it would not be obvious to modify Theimer to update a data file on a central server to reflect the item's arrival at the final destination.

Claim 50:

Claim 50 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. Appellant asserts that claim 1 is not anticipated by Theimer for at least the following reasons.

Theimer does not teach receiving a shipping request via a network for an item to be shipped from an origination to a final destination, as recited in claim 50. The Examiner refers to Fig. 3 and col. 4, lines 1-7 of Theimer. First of all, Appellant notes that col. 4, lines 1-7 of Theimer pertains to a conveyor belt system of Fig. 1, not the system of Fig. 3. Furthermore, as discussed above for claim 1, Fig. 3 of Theimer is not a network over which requests for shipping an item from an origination to a final destination are sent. Instead, Fig. 3 illustrates a large-scale transceiver 106 that broadcasts a destination code for a particular city to tags in the vicinity.

Furthermore, Theimer does not teach to select a shipping route for the item based on the shipping information included in the database, wherein the shipping route comprises one or more intermediate destinations and uses two or more different shipping companies, as recited in claim 50. As discussed above in regard to claim 1, Theimer does not select a route from information in a database that uses two or more shipping companies. The tags in Theimer may select alternate routes from competing services, but there is no teaching in Theimer that an alternate route would use two different companies or that the competing services are even from different companies (as opposed to competing services from the same company). Furthermore, Theimer does not teach that the sequence of destinations referred to in col. 8, lines 16-20, are selected from information in the database. Therefore, Theimer does not anticipate selecting a shipping route for the item based on the shipping information included in the database, wherein the shipping route comprises one or more intermediate destinations and uses two or more different shipping companies, as recited in claim 50.

Furthermore, Theimer does not teach to confirm the selected shipping route via the network, as recited in claim 50. Theimer does not teach that any confirmation is sent. The Examiner cites col. 9, lines 54-56. However, this portion of Theimer states “the route chosen by a tag may take into account features such as ‘registered mail’ versus

ordinary delivery guarantees.” This portion of Theimer clearly does not teach confirming the selected shipping route via a network.

Furthermore, Theimer does not teach to generate a data file comprising origination information, as recited in claim 50. The focus of Theimer is on the tags being able to check destination codes. Thus, there is no need for the tags in Theimer to include origination information. The portion of Theimer cited by the Examiner describes a route by which a package may be sent, but it does not teach that the tag would store origination information. Theimer never discusses any need for the tags to include origination information.

Furthermore, Theimer does not teach to transfer the data file over the network on which the shipping request was received, and store the data file in a memory device that accompanies the item, as recited in claim 50. In the statement of the rejection on pp. 7-8 of the Final Action, the Examiner neglects to give any explanation of where Theimer teaches transferring the data file over the network on which the shipping request was received. Appellant finds no such teaching in Theimer. Appellant further notes that, as discussed above for claim 1, no such data file is taught to be transferred between the tags and large-scale transceiver 106 of Fig. 3. Theimer only teaches that a destination code for the city is broadcast by the large-scale transceiver.

Claim 51:

Claim 51 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Shavit. In addition to the reasons stated in regard to claim 50, claim 51 is further distinguishable because the cited art does not teach maintaining and updating the database by sending requests for quotes using the network. The portion of Shavit cited by the Examiner simply states that a data base may include requests for quotes. Shavit does not teach maintaining and updating a database by sending requests for quotes using the network. Also, as noted above for claim 44, the combination of

Theimer and Shavit is improper in light of the explicit teaching away in Theimer from systems such as in Shavit.

Claims 53, 63 and 66:

Appellant notes that claim 53 was not listed in any of the rejections stated in the Final Action. Therefore, Appellant asserts that a proper rejection has not been stated for claim 53. Also, for reasons similar to some of those given for claim 1, Appellant asserts that it is clear that Theimer does not anticipate a central server coupled to the database and configured to select a shipping route for an item in response to querying the database, wherein the central server is configured to generate a data file including information identifying an origination, destination, and intermediate destination comprised in the shipping route; and a memory device configured to be coupled to the item and configured to receive and store a copy of the data file generated by the central server.

Claim 54:

Claim 54 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Shavit. In addition to the reasons stated in regard to claim 53, claim 54 is further distinguishable because the cited art does not teach that the central server is configured to update the database in response to receiving one or more responses to a request for quote from one or more shipping companies. The portion of Shavit cited by the Examiner simply states that a data base may include requests for quotes. Shavit does not teach updating a database in response to receiving one or more responses to a request for quote from one or more shipping companies. Also, as noted above for claim 44, the combination of Theimer and Shavit is improper in light of the explicit teaching away in Theimer from systems such as in Shavit.

Claim 55:

Claim 55 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 55 is further distinguishable over Theimer because Theimer does not teach that the central server is configured to confirm the shipping route prior to providing the data file to the memory device. The Examiner cites col. 9, lines 54-56. However, this portion of Theimer states “the route chosen by a tag may take into account features such as ‘registered mail’ versus ordinary delivery guarantees.” This portion of Theimer clearly does not teach a central server that is configured to confirm the shipping route prior to providing the data file to the memory device.

Claim 56:

Claim 56 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 56 is further distinguishable over Theimer because Theimer does not teach that the central server is configured to receive confirmation of arrival of the item at the intermediate destination and to responsively update the data file to indicate that the item has arrived at the intermediate destination. The Examiner cites col. 8, lines 33-43. However, this portion of Theimer does not mention anything about a central server receiving confirmation of arrival and responsively updating a data file. In fact, this portion of Theimer teaches away from a central server by stating that the routing intelligence remains with the tag.

Claim 57:

Claim 57 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer. In addition to the reasons stated in regard to claim 1, claim 57 is further patentable for reasons similar to those discussed above in regard to claim 5.

Claim 58:

Claim 58 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 58 is further distinguishable over Theimer because Theimer does not teach that the central server is configured to search the database for a less expensive shipping route from the intermediate destination to the final destination in response to the item arriving at the intermediate destination. The Examiner cites col. 9, lines 30-45. However, this portion of Theimer refers to the operation of an individual package tag, not a central server. Moreover, the cited portion of Theimer does not teach that the tag searches for a less expensive shipping route from the intermediate destination to the final destination in response to the item arriving at the intermediate destination.

Claim 59:

Claim 59 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 59 is further distinguishable over Theimer because Theimer does not teach a processing apparatus located at the intermediate destination, wherein the processing apparatus is configured to update the data file stored on the memory device in response to the item arriving the intermediate destination. The Examiner cites col. 8, lines 33-43. However, this portion of Theimer does not mention anything about a processing apparatus located at the intermediate destination, wherein the processing apparatus is configured to update the data file stored on the memory device in response to the item arriving the intermediate destination.

Claim 60:

Claim 60 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 60 is further distinguishable over Theimer because Theimer does not teach that the central server is configured to select a least expensive shipping route. The Examiner cites col. 9, lines 36-

37. However, this portion of Theimer refers to the operation of an individual package tag, not a central server.

Claim 61:

Claim 61 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 61 is further distinguishable over Theimer for reasons similar to those discussed in regard to claim 10 above.

Claim 62:

Claim 62 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 62 is further distinguishable over Theimer for reasons similar to those discussed in regard to claim 11 above.

Claims 64 and 65:

Claims 64 and 65 have been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Ross. In addition to the reasons stated in regard to claim 53, claims 64 and 65 are further patentable for reasons similar to those discussed in regard to claims 16 and 17 above.

Claim 67:

Claim 67 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 67 is further distinguishable over Theimer because Theimer does not teach that the central server is configured to detect one or more obstacles to on-time delivery of the item, to responsively search the database for a new least expensive routing that avoids the one or more obstacles; and to update the data file to indicate the new least expensive routing. The

Examiner cites col. 9, lines 15-28. However, this portion of Theimer refers to the operation of an individual package tag, not a central server.

Claim 68:

Claim 68 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Shavit. In addition to the reasons stated in regard to claim 53, claim 68 is further patentable for reasons similar to those discussed in regard to claim 45 above.

Claim 69:

Claim 69 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 69 is further distinguishable over Theimer because Theimer does not teach that the central server is configured to update the data file to reflect arrival of the item at the final destination. The Examiner cites col. 8, lines 33-43. However, this portion of Theimer states nothing about updating a data file to reflect arrival of the item at the final destination. Moreover, this portion of Theimer teaches away from a central server by stating that the routing intelligence should remain with individual tags.

Claim 70:

Claim 70 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 53, claim 70 is further distinguishable over Theimer because Theimer does not teach that the item is included in a group of items, and wherein the central server is configured to select different shipping routes on which to ship different subsets of the group of items. The Examiner cites col. 7, lines 45-48. Fig. 3 of Theimer does show a group of items. However, Theimer does not teach a central server configured to select different shipping routes on which to ship different subsets of the group of items.

Claim 73:

Claim 73 has been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Theimer in view of Shavit. In addition to the reasons stated in regard to claim 45, claim 73 is further patentable because the cited art does not teach the central server updating the database in response to said receiving the additional responses. The Examiner cites col. 9, lines 23-28 of Theimer. However, this portion of Theimer refers to the operation of an individual package tag, not a central server. Moreover, this portion of Theimer mentions nothing about updating a database in response to receiving additional responses to a request for shipping quotation for shipping via a network.

Claim 74:

Claim 74 has been finally rejected under 35 U.S.C. § 102(b) as being anticipated by Theimer. In addition to the reasons stated in regard to claim 1, claim 74 is further distinguishable over Theimer because Theimer does not teach the central server selecting one shipping route on which to ship a subset of the group of items and another shipping route on which to ship a remainder of the group of items. The Examiner cites col. 7, lines 45-48. Fig. 3 of Theimer does show a group of items. However, Theimer does not teach a central server selecting one shipping route on which to ship a subset of the group of items and another shipping route on which to ship a remainder of the group of items.

IX. CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejection of claims 1-5, 7-23, 28, 41, 42, 44-47, 49-51, 53-70, 73 and 74 was erroneous, and reversal of the Examiner's decision is respectfully requested.

This Appeal Brief is submitted in triplicate along with the following items:

☒ Return Receipt Postcard

☒ Deposit Account Fee Authorization form for the \$160.00 appeal brief fee (small entity).

Respectfully submitted,



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Date: August 20, 2003

X. APPENDIX

The claims on appeal are as follows.

1. A method for shipping goods, wherein the method comprises:

a central server receiving via a network a request to ship an item from an origination to a final destination;

the central server searching a database for a most inexpensive routing, wherein the most inexpensive routing includes using two or more different shipping companies and one or more intermediate destinations;

the central server generating a data file comprising at least the following:

intermediate destination information identifying the one or more intermediate destinations, and

final destination information identifying the final destination;

the central server transferring the data file over a network; and

storing the data file in a memory device that accompanies the item.

2. The method as recited in claim 1, wherein the memory device is configured to allow the data file to be updated at one or more of the intermediate destinations.

3. The method as recited in claim 1, further comprising packing the item in a container for shipping, wherein the container is configured to fit with multiple other containers in a carrier.

4. The method as recited in claim 1, further comprising forwarding copies of at least a portion of the data file via the network to one or more parties involved in the shipping, wherein the parties include at least an originator of the request to ship the item, a recipient of the item at the final destination, and two or more shipping companies.

5. The method as recited in claim 1, further comprising forwarding copies of the data file via the network to one or more predetermined email addresses.

7. The method as recited in claim 1, further comprising shipping the item using the least expensive routing.

8. The method as recited in claim 1, further comprising:

packing the item in a container;

inserting the container in a first carrier with a first set of additional containers bound for a first of the one or more intermediate destinations; and

shipping the first carrier to the first intermediate destination.

9. The method as recited in claim 1, further comprising:

receiving the carrier at the first intermediate destination;

removing the container from the carrier;

inserting the container into a different carrier with a second set of additional containers bound for a second intermediate destination or the final destination; and

shipping the second carrier to the second intermediate destination or the final destination.

10. The method as recited in claim 1, wherein the data file further comprises contact information for one or more shipping companies that will handle the item.

11. The method as recited in claim 1, further comprising storing the data file on a server connected to the network, wherein the server provides access to the data file via the network.

12. The method as recited in claim 1, wherein the data file further comprises item weight information.

13. The method as recited in claim 1, wherein the data file further comprises item handling information.

14. The method as recited in claim 1, wherein the data file further comprises item content information.

15. The method as recited in claim 1, wherein the data file further comprises payment information.

16. The method as recited in claim 1, wherein the data file further includes one or more digital images of the item before, during, or after shipping.

17. The method as recited in claim 1, wherein the data file further includes one or more digital images of the item showing the physical condition of the item upon receipt at one or more intermediate destinations.

18. The method as recited in claim 1, wherein the memory device further comprises a temperature sensor, wherein the temperature sensor is configured to periodically measure and store temperature readings in the data file.

19. The method as recited in claim 1, wherein the memory device further comprises a humidity sensor, wherein the physical humidity sensor is configured to periodically measure and store humidity readings in the data file.

20. The method as recited in claim 1, wherein the memory device further comprises an environmental sensor, wherein the environmental sensor is configured to periodically measure and store in the data file information about one or more environmental factors that the item experiences during shipment.

21. The method as recited in claim 1, wherein the memory device further comprises a vibration sensor, wherein the vibration sensor is configured to record any vibrations greater than a preprogrammed threshold in the data file.

22. The method as recited in claim 1, wherein the memory device is coupled to a wire-less communications device.

23. The method as recited in claim 1, further comprising:

detecting one or more obstacles to on-time delivery of the item, searching the database for a new least expensive routing that avoids the obstacles; and

updating the data file to reflect the new least expensive routing.

28. The method as recited in claim 1, further comprising updating the data file on the central server to reflect arrival of the item at one or more of the intermediate destinations.

41. The method as recited in claim 1, wherein the memory device is a flash memory device.

42. The method as recited in claim 1, wherein the memory device is a CD-RW.

44. The method as recited in claim 1, wherein the database include price information and delivery time information.

45. The method as recited in claim 1, further comprising:

detecting one or more obstacles to on-time delivery of the item,

soliciting new quotations for shipping the item from one of the intermediate locations to the final destination by transmitting a supplemental request for quotation via the network;

receiving additional responses to the supplemental request for quotation via the network;

selecting an alternate shipping route for the item based on the additional responses; and

confirming the selected alternate shipping route via the network.

46. The method as recited in claim 45, wherein the obstacles include travel advisories for one or more of the intermediate locations.

47. The method as recited in claim 45, wherein the obstacles include shipping backlogs.

49. The method as recited in claim 1, further comprising updating the data file on the central server to reflect the item's arrival at the final destination.

50. A computer program embodied on a computer-readable medium, wherein the computer program is configured to:

receive a shipping request via a network for an item to be shipped from an origination to a final destination;

search a database of shipping information;

select a shipping route for the item based on the shipping information included in the database, wherein the shipping route comprises one or more intermediate destinations and uses two or more different shipping companies;

confirm the selected shipping route via the network;

generate a data file comprising at least the following:

a unique item identifier,
origination information,
intermediate destination information, and
final destination information;

transfer the data file via the network; and

store the data file in a memory device that accompanies the item, wherein the memory device is configured to allow the data file to be updated at one or more of the intermediate destinations.

51. The computer program of claim 50, wherein the computer program is further configured to maintain and update the database by sending requests for quotes using the network.

53. A system comprising:

a database of shipping information;

a central server coupled to the database and configured to select a shipping route for an item in response to querying the database, wherein the central server is configured to generate a data file including information identifying an origination, destination, and intermediate destination comprised in the shipping route; and

a memory device configured to be coupled to the item and configured to receive and store a copy of the data file generated by the central server.

54. The system of claim 53, wherein the central server is configured to update the database in response to receiving one or more responses to a request for quote from one or more shipping companies.

55. The system of claim 53, wherein the central server is configured to confirm the shipping route prior to providing the data file to the memory device.

56. The system of claim 53, wherein the central server is configured to receive

confirmation of arrival of the item at the intermediate destination and to responsively update the data file to indicate that the item has arrived at the intermediate destination.

57. The system of claim 56, wherein the central server is configured to send an email indicating arrival of the item at the intermediate destination to a party involved in shipping the item in response to receiving the confirmation.

58. The system of claim 56, wherein the central server is configured to search the database for a less expensive shipping route from the intermediate destination to the final destination in response to the item arriving at the intermediate destination.

59. The system of claim 53, further comprising a processing apparatus located at the intermediate destination, wherein the processing apparatus is configured to update the data file stored on the memory device in response to the item arriving the intermediate destination.

60. The system of claim 53, wherein the central server is configured to select a least expensive shipping route.

61. The system of claim 53, wherein the data file further comprises contact information for one or more shipping companies that will handle the item along the shipping route.

62. The system of claim 53, wherein the central server is configured to provide access to the data file via the network.

63. The system of claim 53, wherein the data file further comprises item weight information.

64. The system of claim 53, wherein the data file further includes one or more digital images of the item before, during, or after shipping.

65. The system of claim 53, wherein the data file further includes one or more digital images of the item showing the physical condition of the item upon receipt at the intermediate destination.

66. The system of claim 53, wherein the memory device further comprises an environmental sensor, wherein the environmental sensor is configured to periodically measure and store in the data file information about one or more environmental factors that the item experiences during shipment.

67. The system of claim 53, wherein the central server is configured to detect one or more obstacles to on-time delivery of the item, to responsively search the database for a new least expensive routing that avoids the one or more obstacles; and to update the data file to indicate the new least expensive routing.

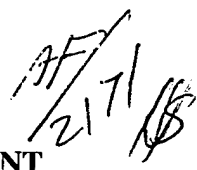
68. The system of claim 67, wherein the central server is configured to request new quotations for shipping the item from an intermediate destination to the final destination in response to detecting the one or more obstacles and to responsively receive one or more responses to the request via the network; wherein the central server is configured to update the database to reflect the responses to the request.

69. The system of claim 53, wherein the central server is configured to update the data file to reflect arrival of the item at the final destination.

70. The system of claim 53, wherein the item is included in a group of items, and wherein the central server is configured to select different shipping routes on which to ship different subsets of the group of items.

73. The method of claim 45, further comprising the central server updating the database in response to said receiving the additional responses.

74. The method of claim 1, wherein the item is included in a group of items to be shipped from the origination to the final destination, the method further comprising the central server selecting one shipping route on which to ship a subset of the group of items and another shipping route on which to ship a remainder of the group of items.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Nguyen, Marilyn P.

Group/Art Unit: 2171

Atty. Dkt. No: 5596-00400

Title: System and Method for Tracking and Routing Shipped Items

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Attorney Docket No.: 5596-00400

Respectfully submitted,

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